

WHAT IS CLAIMED IS:

1. A composition comprising a substantially pure exo β 1-4 Galactosidase obtainable from *Bacteroides fragilis*.

5 2. A composition according to claim 1, wherein the galactosidase is substantially free of contaminating proteases.

10 3. A composition according to claim 1, wherein the galactosidase is isolated by:

(i) obtaining a preparation from *Bacteroides fragilis*;

(ii) incubating the preparation with a first set of labelled oligosaccharide substrates;

(iii) determining the presence of galactosidase activity; and

15 (iv) isolating and substantially purifying the galactosidase.

20 4. A composition comprising a recombinant galactosidase from *Bacteroides fragilis* wherein the galactosidase is cloned by:

(a) isolating DNA from a organism which produces the galactosidase;

(b) forming a gene library from the DNA of step (a) in a recombinant host organism; and

25 (c) identifying recombinant clones of the second organism having galactosidase activity.

5. A composition according to claim 4, wherein step (c) further comprises the step of utilizing one

or more substrates to identify recombinant clones having galactosidase activity.

6. A composition according to claim 1, wherein exoglycosidase is capable of cleaving a Gal β 1-4R linkage.